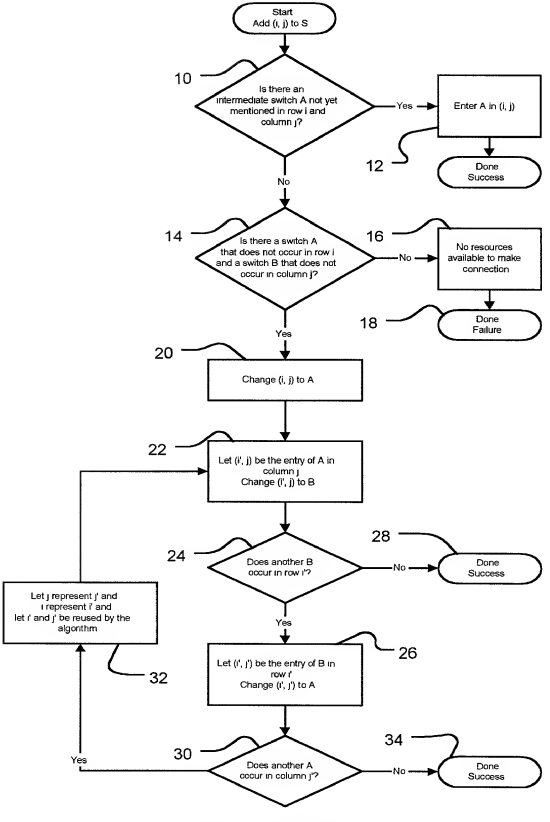


FIGURE 1 (PRIOR ART)

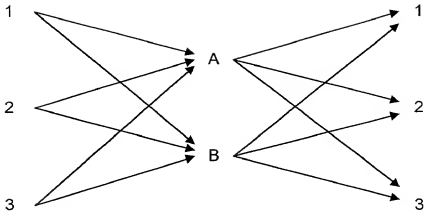
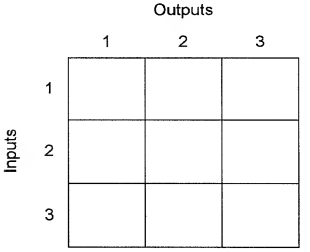


FIGURE 2 (PRIOR ART)



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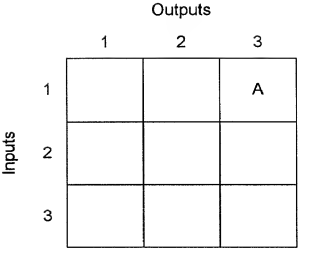

FIGURE 4 (PRIOR ART)

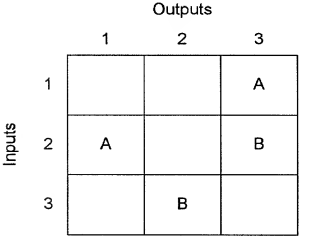

FIGURE 5 (PRIOR ART)

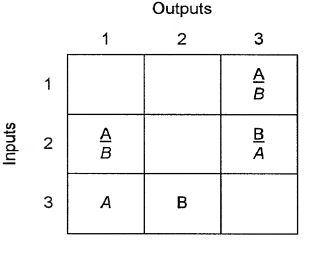

FIGURE 6 (PRIOR ART)

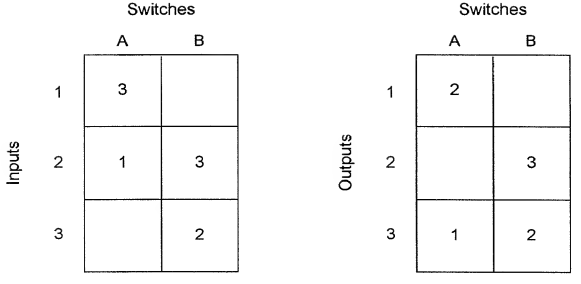

FIGURE 7 (PRIOR ART)

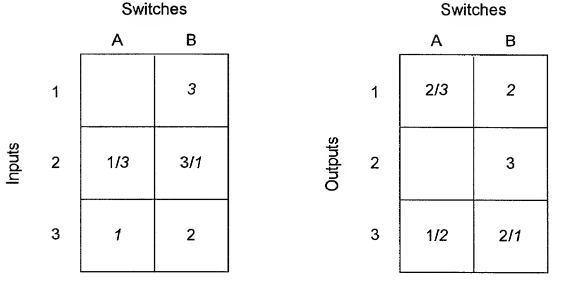

FIGURE 8 (PRIOR ART)

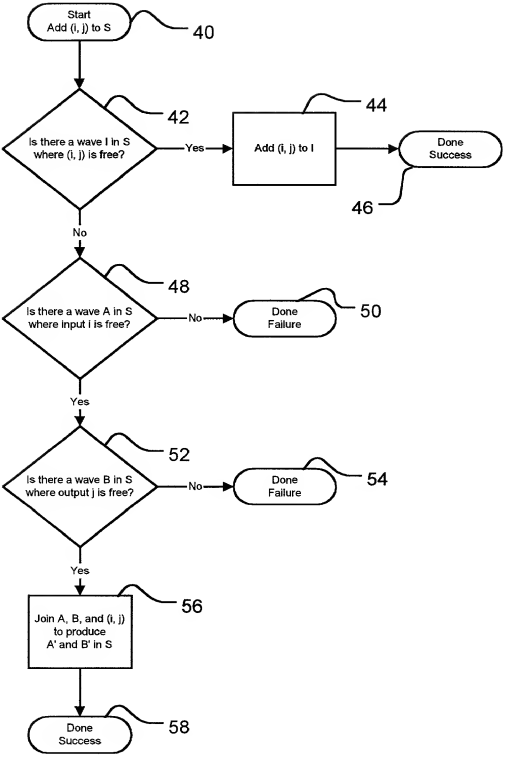
Start
Add (i, j) to S
40
Is there a wave I in S where (i, j) is free?
42
Yes
Add (i, j) to I
44
Done
Success
46
No
Is there a wave A in S where input i is free?
48
No
Done
Failure
50
Yes
Is there a wave B in S where output j is free?
52
No
Done
Failure
54
Yes
Join A, B, and (i, j) to produce A' and B' in S
56
Done
Success
58

FIGURE 9

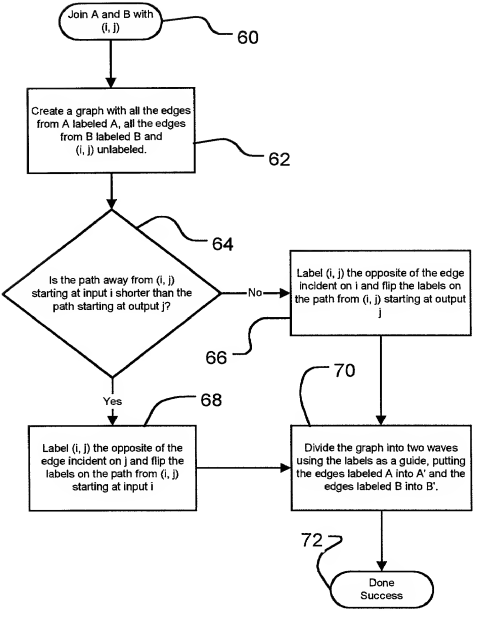
Join A and B with (i, j)
60
Create a graph with all the edges from A labeled A, all the edges from B labeled B and (i, j) unlabeled.
62
64
Is the path away from (i, j) starting at input i shorter than the path starting at output j?
No
Label (i, j) the opposite of the edge incident on i and flip the labels on the path from (i, j) starting at output j
66
70
Yes
68
Label (i, j) the opposite of the edge incident on j and flip the labels on the path from (i, j) starting at input i
Divide the graph into two waves using the labels as a guide, putting the edges labeled A into A' and the edges labeled B into B'.
72
Done
Success

FIGURE 10

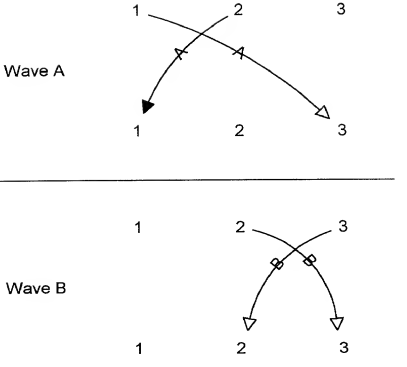

FIGURE 11

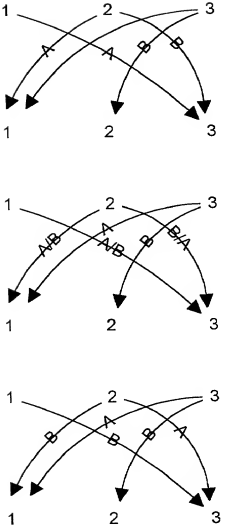

FIGURE 12

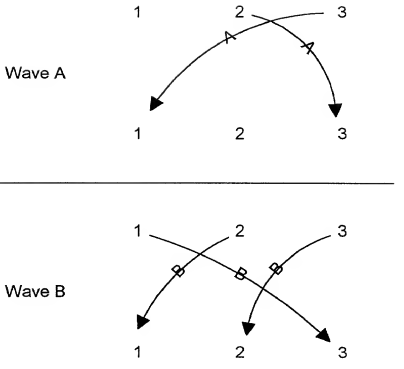

FIGURE 13

Switches

Inputs	A	B
1	3	
2	1	3
3		2

Switches

Outputs	A	B
1	2	
2		3
3	1	2

FIGURE 14

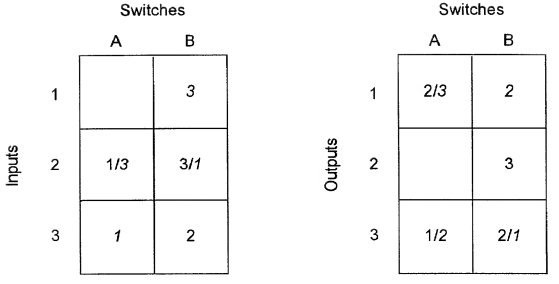

FIGURE 15

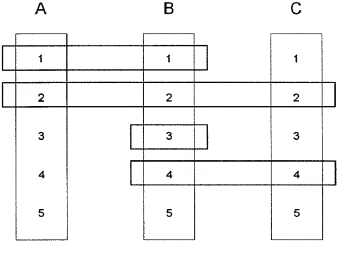

FIGURE 16